Adequately serving commuters is universally a headache for railroads. But they can be good friends and good business, the Burlington has learned from its affirmative approach to the question:

Are Commuters Worth It?

Increased revenues and reduced expenses stemming from $15 million commutation improvement program check annual service losses

Commutation revenues have been increased and the upward trend of service costs has been blunted by the Chicago, Burlington & Quincy in its Chicago-Aurora commutation service. A five-year program of service betterments combined with improved operating techniques and practices turned the trick, and actually brought diminishing annual losses.

The Burlington management believes—and its commuter-patrons apparently agree—the service never has been better.

Commuters "Good Business"

"Our commuters are our neighbors," Harry C. Murphy, CB&Q president, has often said, "and that makes them important to us. They are much more than just twice-a-day riders. They are shippers, travelers, potential vacationists. Most important, when pleased by our service, they become our enthusiastic salesmen-at-large. Consequently we feel that to give our commuters good suburban service is good business." These words typify the thinking and the philosophy that has gone into the Burlington's $15 million suburban service improvement program—making it one of the best, and most talked about, railroad commutation services in the country.

This attitude of the management in approaching the problem has undoubtedly been the most important factor in the development and growth of the suburban service program. In essence, the Burlington has accepted the facts that its commutation service is a necessary public utility and an essential factor in its public relations, and that its discontinuance—even if the Illinois Commerce Commission were to permit such a drastic action—would work serious hardship on its patrons and on the communities where they live. Therefore, all thinking and attention has been concentrated on positive ways and means of reducing service losses by improving patronage and revenues as well as by reducing expenses.

There are many special circumstances which made possible the particular combination of service improvements and operating economies used by the Burlington.

HIGH SEATING CAPACITY plus passenger comfort was found in Budd "gallery" coach.

TRIAL CARS were used to determine commuter preferences before old cars were modernized. Advertising signs have been discontinued.

One is that its suburban service problem is somewhat simplified by having but one 3-tracked main line running into Chicago, with no branches or alternate routes. These facilities are used both for main-line passenger and freight trains and suburban service. And there are no "special" suburban facilities other than additional coach storage tracks at Chicago and Aurora, a well-equipped diesel maintenance shop at Aurora, and the suburban station buildings.

Highway competition is not as keen as it might be because from Burlington suburbs the downtown areas of Chicago can only be reached otherwise by overcrowded highways and congested city streets. However, completion of the new west-side Congress Street superhighway (scheduled for 1955) may change this picture somewhat, although the road will not directly tap any CB&Q communities.

The only bus competition—and that a transit-type operation—extends only as far west as La Grange. The railroad provides the only intercommunity public transportation available west of that point.

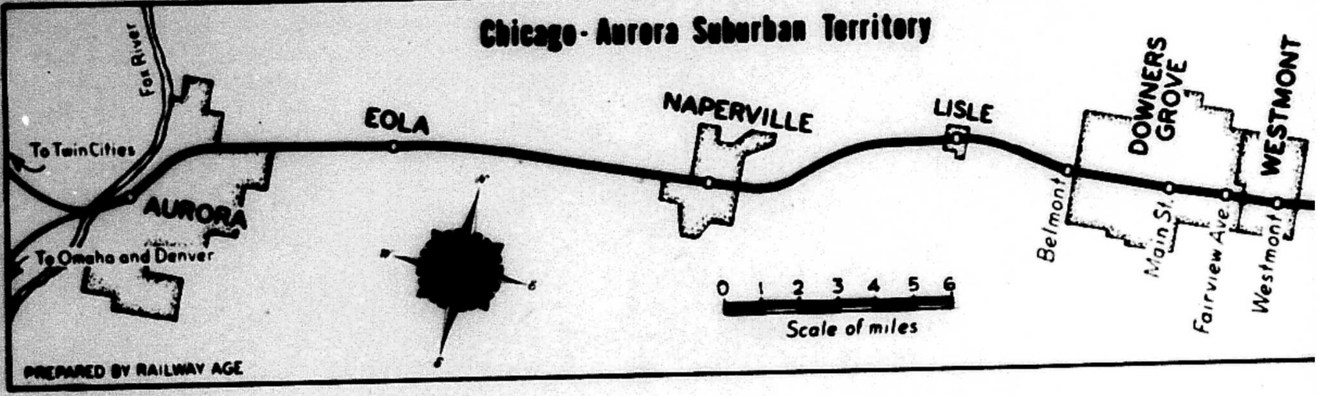
A combination of conditions led to a thorough review of the entire Burlington suburban service picture, and the preparation of a long-range plan for action.

The postwar growth of suburban population resulted in larger commutation crowds on the Burlington—as on most other suburban lines throughout the country—creating a track capacity problem at Union Station in Chicago. Increasing train lengths made it difficult to get the fullest or best use of the four westernmost "suburban" tracks and platforms. Likewise, the same long trains were causing troubles at suburban station platforms.

At the time, all suburban service was being operated with steam power and with 128 open-vestibuled coaches built between 1910 and 1930. Maintenance costs on the 63 oldest cars were mounting—and it was determined that the cost of complete modernization would be excessive. Therefore it was decided to retire these cars, or divert them to company service. The remaining 65 cars were of more recent vintage and basically more sound. But they were without modern lighting or closed vestibules.

It was also obvious that the increasing use of diesel power would sooner or later require some service changes.

Because some of the existing equipment was over age, and the rest needed modernizing, it was decided that every car should be replaced or completely remodeled.



ELECTRICAL POWER for all cars is produced in the "power coach" directly behind the locomotive.

After considerable study, it was determined that any new cars must meet three primary considerations: (1) Each car must have a high seating capacity—preferably well over 100 passengers per car; (2) the cars must be economical to maintain and operate; and (3) the cars must be attractive to passengers. Conditions (2) and (3) were also applied to plans for modernizing older cars.

It was finally decided to do two things: (1) to modernize the 65 newer all-steel suburban coaches. (In the process, they were given closed vestibules, new seats, new and improved lighting, roller bearings, and ice-activated air-conditioning.) (2) To acquire 30 new stainless steel, air conditioned "gallery" suburban coaches from the Budd Company. The "gallery" design was selected because it combines high seating capacity (148) with comfort for the individual passenger, and because its design facilitates rapid loading and unloading. (For a full description see *Railway Age*, October 21, 1950, page 20.)

It has long been the Burlington practice that equipment should be bought on the basis of quality and durability, rather than price. Therefore adequate capital was advanced to secure equipment designed and constructed to give long, economical passenger service life.

The Burlington used a system of "head-end" lighting, with all electrical power for the entire train produced by a generator on the steam locomotive. The increased power demands for lighting on the new and rebuilt coaches, and the conversion from steam to diesel power, necessitated changing to the use of a special diesel-driven generator placed in a "power coach" carried at the front or rear of every train.

By 1951 the new equipment, coupled with other service improvements, produced so much new traffic that it was necessary to order 10 additional "gallery" coaches, and to convert 23 main-line coaches for suburban service.

Equally important, maintenance and operating costs of the new 128-car fleet so far are lower—though admittedly these costs are currently influenced by the newness of the equipment. But indications are that so long as the cars are properly serviced and maintained they will continue to be relatively economical.

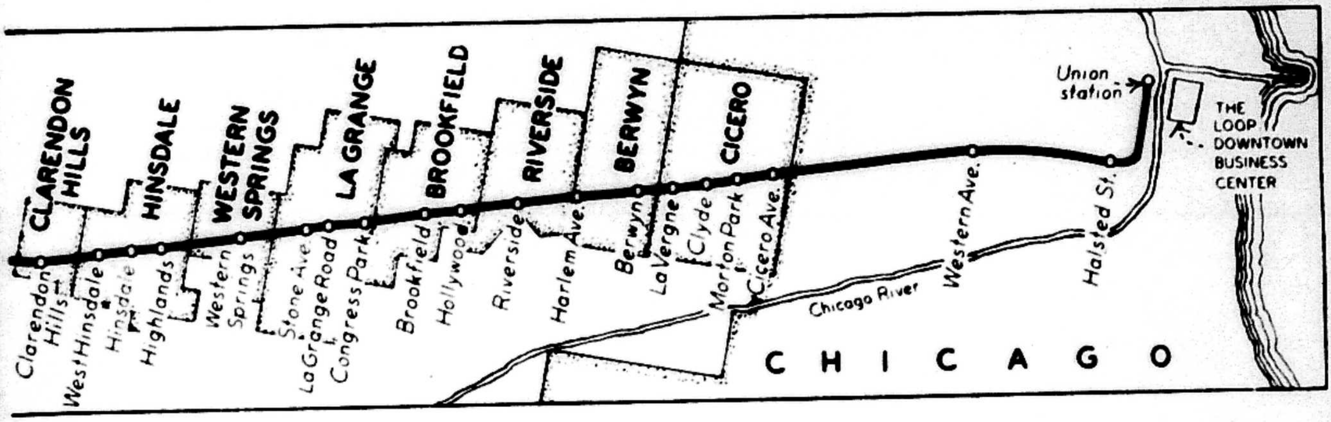
Diesels Pooled for Economy

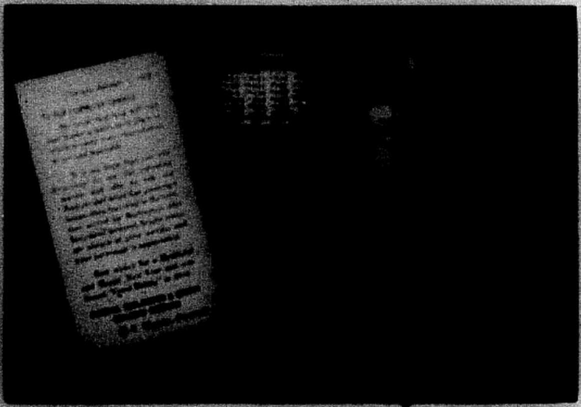
Conversion from all-steam to complete diesel operation was the second step in the program. This made possible faster, cleaner service, as well as numerous operating economies.

The amount of power needed to operate the suburban service was reduced by integrating suburban and main-line passenger locomotives into a unified pool. Thus a two-unit main-line engine could be split, with each unit handling a separate suburban train out to Aurora and back.

An unusual feature of this pooling plan is the way in which it was utilized to permit closing roundhouse facilities in Chicago formerly exclusively devoted to storing and servicing passenger engines. Under the pooling arrangement, inbound main-line passenger engines are worked out to the Aurora shops and back on commutation trains. In this way the "dead" time of suburban trains at Aurora is utilized to make light and running repairs to approximately 18 units a night, thereby easing the maintenance burden at the main 14th Street passenger shops in Chicago.

Another operational change was the closing of the intermediate suburban terminal formerly maintained at Downers Grove. All trains now originate or terminate in Aurora. The closing of this intermediate terminal was





EACH NEW YEAR the CB&Q gives its commuters this handy ticket wallet containing a friendly greeting.

made practical by the elimination of steam and the substitution of diesel power.

Closing the Downers Grove terminal required the operation of a substantial number of additional train-miles per week. However, the decision of the Post Office Department to truck local mail permitted the discontinuance of several trains operated primarily for the mails. And some consolidation of commutation hour schedules was made possible by the new high capacity cars and diesel power. Thus the transition—which was made over a period of 18 months—was accomplished without reducing service, and without the full number of additional train-miles that would otherwise have been necessary.

Better Service for More Revenue

The need for faster, more attractive schedules to the more distant suburbs was emphasized by the rapid population growth in these areas. Scheduling possibilities were strictly limited by the comparatively even spread of population at all stations between Berwyn and Downers Grove. Further, the only available crossovers were at Congress Park and Downers Grove, eliminating the possibilities of "run arounds" in the area of densest traffic. This situation will be alleviated soon with the completion of a new crossover being placed at West Hinsdale, which will be controlled from the Cicero tower.

THIS IS THE RECORD

	1949	1953
Number of cars in service	128	128
Total seating capacity	12,680	13,491
Number of locomotives required for commutation service	24	19
Passengers handled per month (average per month, commutation and multiple ride)†	454,994	546,101*
Average revenue per month—commutation and multiple ride†	$112,163	$139,834**

*Based on first nine months.

**Before the fare increase. Fares in effect in 1949 and the first 10 months of 1953 were identical.

†These figures are based on ticket sales and do not include passengers using one-way and round-trip tickets, or paying cash fares on trains.

After a two-year study of the needs of the commutation patrons, schedules were completely revised. In this revision, provision was made for the maintenance of a high standard of mid-day and post evening rush hour service.

This practice has paid off in two ways: (1) Increased equipment utilization has helped reduce costs; and (2) some of the suburban revenue gain, the passenger department believes, has resulted from the patronage of these off-peak trains.

Still greater flexibility in scheduling will be possible upon completion of a resignaling program now in progress between Cicero Avenue and Aurora. The existing 3-indication block signal system is being replaced with a 4-indication system. Eventually centralized traffic control permitting two-way running on the center track will be installed.

This is part of a general line and yard improvement, and is not being undertaken primarily for the benefit of the commutation services.

Commuters Support Fare Rise

During the transition stage in the suburban improvement program, no effort was made to raise the fare schedule. But early in 1953, it became obvious that steadily increasing operating costs had created a serious need for additional revenue. Therefore a new tariff calling for an average 27½ per cent increase in commutation fares was filed with the Illinois Commerce Commission in June. The tariff, as usual, was suspended by the commission pending hearing.

Although the hearing was widely publicized in advance, there was a complete absence of commuter opposition when the proceedings opened.

An interesting aspect of the Burlington's approach to this rate increase is its policy of keeping its commuters informed about impending developments.

Prior to filing a new tariff with the Illinois Commerce Commission, a leaflet entitled, "A Progress Report on your Suburban Service," was prepared. It reviewed the modernization program, comparing the service "then" and "now." It told the commuter . . . "and now we need your help," and outlined the proposed fares. (*See Railway Age*, July 13, 1953, page 17.) On the day the tariff was filed, this leaflet was distributed to the commuters so they would not be caught unaware by the railroad's action.

When the commission authorized the increase on October 28, nearly five months later, the Burlington again reported to its passengers in a letter distributed on trains. The letter also explained the railroad was postponing the effective date on its 46-and 54-ride monthly tickets to November 7 so that regular commuters would not be inconvenienced by having to pay the higher rate on short notice.

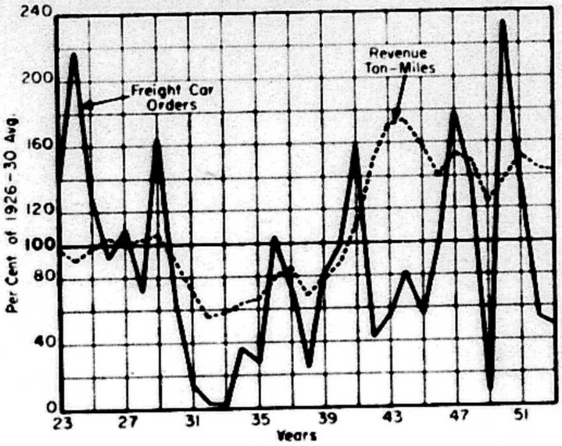
This approach is an essential part of the Burlington's policy of winning friends by being a good neighbor to its commuters.

Although the Burlington people are proud of the reputation they have earned among their commuters, they do not consider the suburban service as remarkable, but merely as the reward for careful planning and good management

Needed — More Inquiry Into Car Supply Economics

There are some railroad problems which are not the exclusive concern of only a few railroads, but are shared by every company in the industry. One of these common problems seems to be getting less than its share of inter-railroad attention (in ratio to its importance, that is). This is the problem of maintaining, at maximum economy, a dependably adequate supply of freight cars, physically suited to the available traffic.

Only a short time ago many railroads were "short" of freight cars and were clamoring for larger allotments of materials, so that they could increase their supply. In recent months, as is generally known, there have been more than enough cars to go around and orders for new cars have been meager. Railroad traffic is subject to fluctuations, and it is natural to expect that the number of cars ordered would also be subject to some ups and downs. The accompanying chart shows, however, that the fluctuations in the car orders placed by the railroads are much more violent than are the fluctuations in freight traffic volume.



Fluctuations in Revenue Ton-Miles and In Freight Car Orders
(Average for 1926-30 = 100 Per Cent)

In 1939 a standard freight car could be purchased for about $2,700. A standard freight car today (a somewhat better car, to be sure) will cost in the neighborhood of $5,900. The present fleet of about 1.8 million railroad-owned freight cars would, therefore, represent an investment of about $10.6 billion, if the cars were all new. The same sized fleet in 1939 (all new cars) would have represented an investment of less than half as much. There exists today, therefore, a much stronger financial incentive than ever for thorough study and effort to intensify the utilization, per unit, of the car fleet; and to remove as many of the causes as possible which tend to increase the cost of cars.

There are many "interests" involved in the supply of freight cars to the railroads. Some of these interests are frequently considered to be mutually conflicting. However, all of them would probably be better off than they are today if—by thorough analysis, discussion, and experiment—the railroads should attain maximum efficiency in freight-car acquisition, maintenance and management; and would use this increased efficiency pricewise to attract competitive traffic. A supplier can usually adapt profitably his methods and his products to almost any modification in the demands of a growing and prosperous customer. It is pretty hard, however, for even the most adroit supplier to adapt his operations profitably to serve an impoverished customer whose business is waning.

Nobody can be absolutely certain today just what detailed policies of acquiring and maintaining freight cars would, over the years, give the railroads the maximum economy and, hence, the greatest strength in holding and attracting competitive traffic. The very fact that competent railroad men have diametrically opposed opinions on some of these policies, actual or potential, is proof enough that more intensive analysis and experiment is needed. When the statistical and experimental facts are adequately collected and correlated and marshaled, the areas of difference among competent observers are minimized, and sometimes eliminated.

This paper will welcome from its readers their serious discussion of all pertinent aspects of this vital problem—always, of course, from the point of view of the long-run welfare of the railroads. One conclusion seems reasonably certain from no more data than those presented in the accompanying chart, viz., that suppliers (e.g., the manufacturers of cars and parts) which have to maintain production capacity to serve such peaks as those of 1924 and 1950—through periods of low demand (such as 1931-33, or 1938, or 1953)—have a higher product cost, and necessarily higher average prices, than would otherwise be required. Higher costs of whatever origin must be reflected in the pricing of railroad service — and, hence, must have an adverse effect on traffic volume.